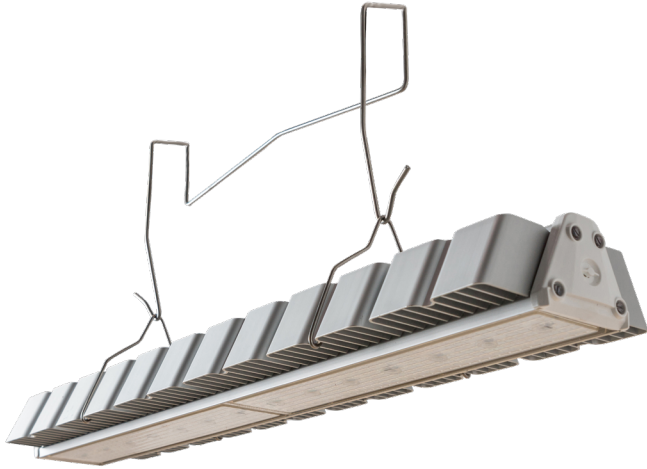# Arize Element® L1000

Enabling efficient growth at an industrial scale

Features

- The Arize Element is a family of super-efficient, robust, and reliable LED professional horticultural lighting fixtures for greenhouses and indoor farms.

- Available in a wide range of power and spectral options, the Element offers scalable solutions for maximum productivity and efficiency across a wide range of horticultural applications.

- Ultra-efficacious – up to 3.6 umol/j

- Various spectral options for crop-specific applications

- Engineered optics for superior uniformity

- Easy to install brackets

- 6kV Surge Protection

- Applications include indoor non-stacked as well as greenhouse applications, top light, as sole source or supplemental lighting

PRODUCT SPECIFICATIONS	
Light source	LED
Equivalent	Up to 1000W DE HPS
Wattage	See chart on page 3
Input voltage	120 - 480V
Spectrum	Various - see chart
Photosynthectic Photon Flux PPF (High Output)	1,750-2,200 µmol/s
Efficacy	2.6 to 3.6 µmol/j
Dimming	0-10V (dim to off)**
Dim Off Voltage	0.35-0.65 V (typ. 0.5 V)
Dim On Voltage	0.55-0.85 V (typ. 0.7 V)
Distribution	XWD Optic, WD Optic
Maximum remote distance	18 ft
Power Factor	>0.99***
THD	<10%
Q90	>50,000 hours****
Operating temperature	0°C to 40°C (32°F to 104°F)
Thermal Mgt	Passive
Listing	cULus, CE, UKCA, DLC, IP66
Lens	Polycarbonate
Mounting	Unistrut bracket or aircraft cable
Limited Warranty	Five-year warranty

* Average rated life based on industry standard measurements.
** Refer to installation guide for dimming functionality details.
*** Tested at minimum input voltage.
**** Test at 40° C per TM-21.

Warranty: 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: **www.acuitybrands.com/support/warranty/terms-and-conditions**

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
The product images shown are for illustration purposes only and may not be an exact representation of the product.

Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate. Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.
Certain airborne contaminants may adversely affect the functioning of LEDs and other electronic components, depending on various factors such as concentrations of the contaminants, ventilation, and temperature at the end-user location. Click here for a list of substances that may not be suitable for interaction with LEDs and other electronic components.

Lead times will vary depending on options selected. Consult with your sales representative.

Series		Spectrum		Performance Package		Voltage		Driver	
VAE1	Arize Element L1000	**BRH**	White High Blue	**HEFY**	High Efficacy	**120**	120V	**L/DVR**	Less Driver
		BRI	White Medium Blue	**HO**	High Output	**208**	208V	**GZ10**	0-10V dimming driver
		PKF	Pink Far Red	**SEFY**	Standard Efficacy	**240**	240V		
		PKT	Pink Extremely Low Blue			**277**	277V		
		PKR	Pink Low Blue			**277X**	277V utilitzing XVOLT driver		
						347X	347V utilitzing XVOLT driver		
						480X	480V utilitzing XVOLT driver		
						MVOLT	120-277V		
						XVOLT	277-480V		

Distribution		Cordsets ‡	
WD	Wide Distribution	**(blank)**	No power supply
XWD	Extra wide distribution	**CNPQDWL4FT**	Cord with quick disconnect, no plug, 3-conductors, black, wet location, 4FT
		CNPQDWL	Cord with quick disconnect, no plug, 3-conductor, black, wet location, 6FT
		CNPQDWL10FT	Cord with quick disconnect, no plug, 3-conductor, black, wet location, 10FT
		CNPQDWL12FT	Cord with quick disconnect, no plug, 3-conductor, black, wet location, 12FT
		CNPQDWL15FT	Cord with quick disconnect, no plug, 3-conductor, black, wet location, 15FT
		CNPQDWL20FT	Cord with quick disconnect, no plug, 3-conductor, black, wet location, 20FT
		CPQDTL4FT	Cord with quick disconnect, NEMA twist-lock 15A plug, 3-conductor, white, damp location, 4FT
		CPQDSB4FT	Cord with quick disconnect, NEMA straight blade 15A plug, 3-conductor, white, damp location, 4FT
		CPQDSB	Cord with quick disconnect, NEMA straight blade 15A plug, 3-conductor, white, damp location, 6FT
		CPQDSB10FT	Cord with quick disconnect, NEMA straight blade 15A plug, 3-conductor, white, damp location, 10FT
		CPQDSB12FT	Cord with quick disconnect, NEMA straight blade 15A plug, 3-conductor, white, damp location, 12FT
		CPQDSB15FT	Cord with quick disconnect, NEMA straight blade 15A plug, 3-conductor, white, damp location, 15FT
		CPQDSB20FT	Cord with quick disconnect, NEMA straight blade 15A plug, 3-conductor, white, damp location, 20FT
		CPQDTL	Cord with quick disconnect, NEMA twist-lock 15A plug, 3-conductor, white, damp location, 6FT
		CPQDTL10FT	Cord with quick disconnect, NEMA twist-lock 15A plug, 3-conductor, white, damp location, 10FT
		CPQDTL12FT	Cord with quick disconnect, NEMA twist-lock 15A plug, 3-conductor, white, damp location, 12FT
		CPQDTL15FT	Cord with quick disconnect, NEMA twist-lock 15A plug, 3-conductor, white, damp location, 15FT
		CPQDTL20FT	Cord with quick disconnect, NEMA twist-lock 15A plug, 3-conductor, white, damp location, 20FT
		CPQDTL20A4FT	Cord with quick disconnect, NEMA twist-lock 20A plug, 3-conductor, white, damp location, 4FT
		CPQDTL20A	Cord with quick disconnect, NEMA twist-lock 20A plug, 3-conductor, white, damp location, 6FT
		CPQDTL20A10FT	Cord with quick disconnect, NEMA twist-lock 20A plug, 3-conductor, white, damp location, 10FT
		CPQDTL20A12FT	Cord with quick disconnect, NEMA twist-lock 20A plug, 3-conductor, white, damp location, 12FT
		CPQDTL20A15FT	Cord with quick disconnect, NEMA twist-lock 20A plug, 3-conductor, white, damp location, 15FT
		CPQDTL20A20FT	Cord with quick disconnect, NEMA twist-lock 20A plug, 3-conductor, white, damp location, 20FT

Mounting		Packaging	
(blank)	No mounting option	**(blank)**	Unit
MTBS275	Square mounting bracket, 2.75IN/70mm	**JP30**	Job package 30
MTBU1625	Unistrut mounting bracket, 1.625IN/40mm		
MTBUO1625	Unistrut mounting bracket, offset, 1.625IN		
VAAC18	Arize aircraft cable, 18IN		

‡ indicates option chosen has ordering restrictions. Please reference ordering restrictions chart. Options are sorted alphanumerically

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Phone: 1-800-705-SERV (7378) • TechSupport-Horticulture@AcuityBrands.com
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Accessories

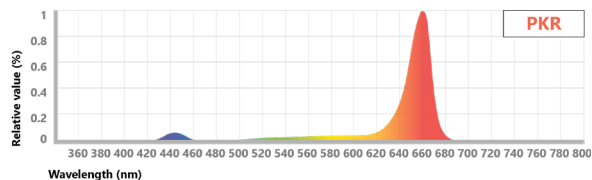|	
VACNPQD4FT	AC Leader Cable, 4'/1219mm, UL
VACPQDSB4FT 5-15P	AC Leader Cable, 4' NEMA 5-15, UL
VACPQDTL4FT L7-15P	AC Leader Cable, 4' NEMA L7-15, UL
VACPQDTL4FT L8-20P	AC Leader Cable, 4' NEMA L8-20, UL
VADCEX3FT	DC Interconnection Cable, 3'/914mm,UL/CE
VADCEX	DC Interconnection Cable, 6'/914mm,UL/CE
VACNPQDLV3FT	dimming Cable, 3 ft/ 914mm, UL/CE
VA1MTBU1625	1.625 in / 40 mm Unistrut mount
VA1MTBUO1625	1.625 in / 40 mm Unistrut offset mount
VA1MTBU275	2.75 in / 70 mm Unistrut square mount
VAAC18	18 in / 457 mm Universal Cable Mount (ships 4 per bag - 2 for driver and 2 for fixture)
VAAC24	24 in / 609 mm Universal Cable Mount (ships 4 per bag - 2 for driver and 2 for fixture)
VAAC36	36 in / 914 mm Universal Cable Mount (ships 4 per bag - 2 for driver and 2 for fixture)
VAAC60	60 in / 1524 mm Universal Cable Mount (ships 4 per bag - 2 for driver and 2 for fixture)
VA1MTP90	90° Perpendicular Mounting Kit

‡ Option Value Ordering Restrictions

Option value	Restriction
Cordsets	CPQDTL20A otpions required with 347 and 480V. CPQDSB and CPQDTL options not available with MVOLT or HVOLT.
JP30	Available with GZ10 only.

Spectrum Table

Family	Spectrum	Typical photon flux[1] (µmol/s)	Power[1] (W)	Efficacy[1] (µmol/J)
L1000 (SEFY)	PKT - Pink ELB	1,900	610	3.1
	PKR - Pink LB	1,900	627	3.0
	PKF - Pink FR	1,900	644	3.0
	BRI - White MB	1,750	658	2.7
	BRH - White HB	1,750	683	2.6
L1000 High Efficacy (HEFY)	PKT - Pink ELB	1,900	542	3.5
	PKR - Pink LB	1,850	572	3.2
	PKF - Pink FR	1,800	571	3.2
L1000 High Output (High Ouput)	PKT - Pink ELB	2,200	690	3.2
	PKR - Pink LB	2,050	690	3.0

[1] Tested at maximum input voltage. Typical performance +/-10%
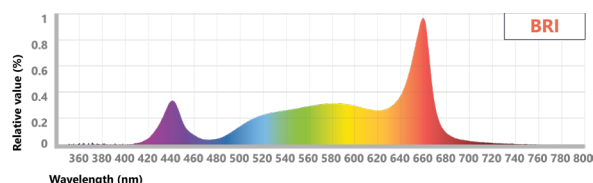
Photometric Data

Type R
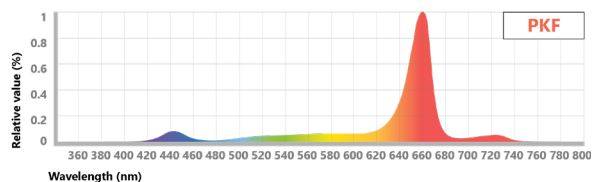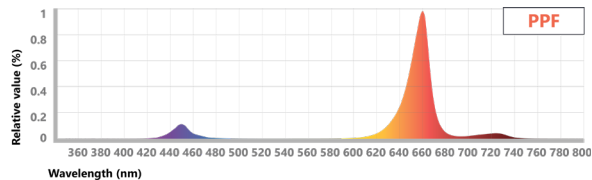
High red light to optimize plant growth and photosynthesis

PKR

Type BR

Increased blue ratio boosts secondary metabolite production to promote crop quality and phytochemical profile
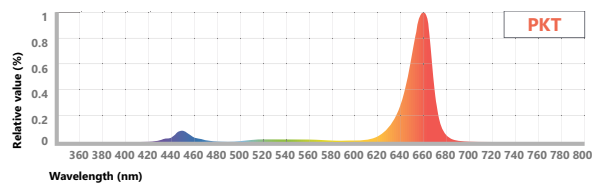

BRI

BRH

Type F

Full-Spectrum lighting with Far Red. Far red promotes extension growth. Although humans can barely see far-red radiation, it has a major effect on the size of leaves, the length of stems, and ultimately the height of plants.
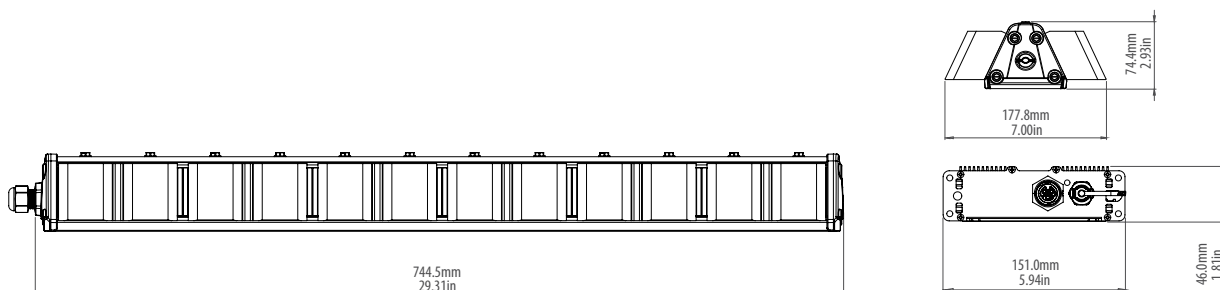

PPF

PKF

Type T

Increased blue and green ratios boost secondary metabolite production to promote crop quality and phytochemical profile

PKT

Dimensions and Weight

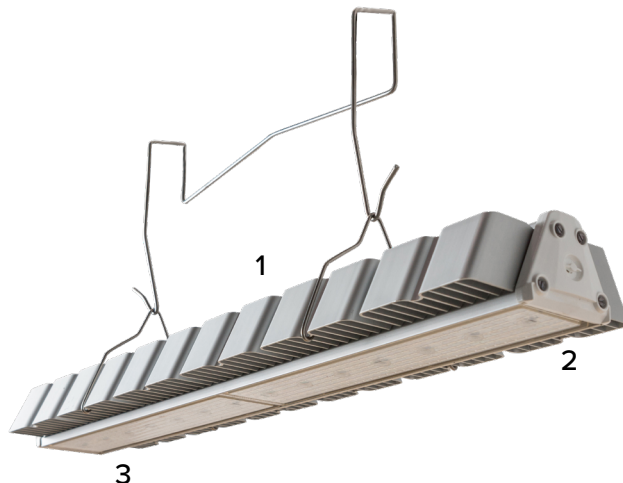|	LENGTH	WIDTH	HEIGHT	WEIGHT
L1000 Fixture	29.31" 745 mm	7.00" 178 mm	2.93" 75 mm	9.0 lbs 4.1 kg
Power Supply	13.12" 333 mm	1.81" 46 mm	5.94" 151 mm	7.0 lbs 3.2 kg

Why Element?

1. Purpose-Built
A heat sink that doesn't accumulate debris and LEDs protected by a lens are just two of the ways we designed reliability into the L1000. We've also designed all-new mounting brackets, further simplifying installation

2. Maximum Capability
We've simplified our language: broad white, broad pink and dual-band purple, all with high- and low-blue variants maximize year-round production for both sole-source and supplemental applications

3. Less Input. More Output
LED is more accessible than ever: Our XWD optic reduces the number of fixtures required (more on that below), while efficacy levels surpassing 3.6 μmol/J enable direct replacement of 1000W HPS fixtures, reducing energy costs by over 40%. Did we mention no relamping?

Enabling efficient growth at an industrial scale

Sustainable
Efficacy levels surpassing 3.6 μmol/J make the Element one of the most efficient grow lights in its class, lowering operating expenses
Precise
Our XWD Optic efficiently spreads light, reducing the number of fixtures by an average of 10 to 15% without sacrificing uniformity or crop quality

Complete
Four application-specific models and eight spectrums ranging from dual-band purple to broad white ensure there is an Element for every farm
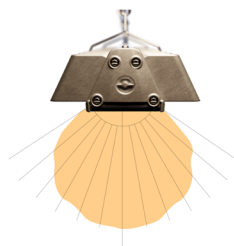Assembled in the USA
Tried and true manufacturing, a standard five-year warranty and a >50,000 hour lifetime ensure consistent, predictable yields for years to come
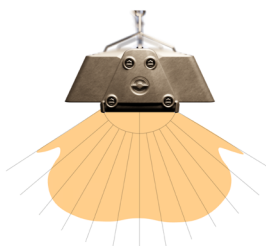
XWD Optic

Compared to the previous generation's Lambertian distribution, our new XWD Optic precisely controls light dispersion, resulting in wider coverage in low headspace applications. It further reduces the number of fixtures by 10 to 15%, without sacrificing uniformity or crop quality, lowering capital investment.

Lambertian Distribution

XWD Optic

Spectral Distribution				
Spectrum	Blue PF	Green PF	Red PF	Far Red PF
PKR	8.0%	15.0%	77.0%	0.0%
PKF	8.0%	15.0%	72.0%	5.0%
PKT	6.0%	6.0%	88.0%	0.0%
BRI	15.0%	38.0%	47.0%	0.0%
BRH	25.0%	38.0%	37.0%	0.0%

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